APPENDIX A

ANALYSIS OF TREATED WASTEWATER AND SLUDGE GENERATED BY WASTEWATER TREATMENT UNIT

THE MAYOR AND COMMISSIONERS
OF THE TOWN OF ELKTON, MARYLAND

P.O. BOX 157, ELKTON, MARYLAND 21921

Administrator
ROBERT R. REED
(301) 398-0970

December 12,1988

John Van Hulle
Air Produts and Chemicals, Inc.
329 West Main Street
Elkton,Md 21921

Dear Mr. Van Hulle:

Enclosed with this letter are the results of the sample taken from your plant on December 2,1988. If you have any questions or concerns please feel free to contact me at any time. I thank you for all your cooperation in this matter.

Thanks Again,

Douglas R. Connell

Douglas R. Connell
Pretreatment Program Adm.

ELKTON MUNICIPAL LABORATORY
ELKTON, MARYLAND

NAME of Facility: Air Products Inc. County: Cecil
Type of Waste: Industrial (treated)
Source of sample: ___ RAW ___ INTERMIDATE X FINAL
Sample Type: ___ GRAB ✓ COMPOSITE 6 HOURS
SAmple Iced: ___ Yes ___ No

X In operation 8 hrs day

COLLECTION:

DATE: 12/2/88 TIME: 10:00/6:00 AM/PM
NAME: D. Connell NO# ———

TEST RESULTS

pH: 6.3

RESIDUAL CHLORINE: Free 0.0
Total 0.0

FECAL COLIFORM ———— /100 ml/MPN

B.O.D.$_5$ Day 353 mg/l

SUSPENDED SOLIDS 72 mg/l

DISSOLVED OXYGEN — mg/l

TOTAL PHOSPHOROUS — mg/l

TOTAL SOLIDS — %

VOLITIAL SOLIDS — %

SOLUBLE B.O.D.$_5$ DAY — mg/l

Laboratory Technichian: D. Connell

REMARKS

United Engineers
& Constructors Inc.
Stearns Catalytic Division
Environmental Laboratory

201 E. 10th Street
P.O. Box 434
Marcus Hook, PA 19061
215 485 5377

United Engineers & Constructors
A **Raytheon** Company

07/26/88

Ms. Stephanie Boisitz
APCI (Elkton)
329 West Main St.
Elkton, MD 21921

Subject: U.E.& C. Contract No. 99216
APCI (Elkton)
LABORATORY ANALYSIS

Dear Ms. Boisitz:

Attached is the analytical report for samples submitted to us 07/18/88.

The samples "as received" were handled as described in the report and the reporting basis is noted.

If there are any questions, please do not hesitate to contact me @ (215) 485-5377.

Very truly yours,

Joe C. Watt

Laboratory Services Director

JCW/ibm
Attachment
6230

United Engineers & Constructors
A Raytheon Company
Stearns Catalytic Division

METHOD REFERENCE

Stearns Catalytic Division of United Engineers and Constructors employs Method 625 for the GC/MS analysis of semi-volatile priority pollutant organics in liquid matrices. This method is published in 40CFR 136 dated 9/25/87. Method SW-846; 3550 and 8270 are used for soils and solid matricies (3rd edition).

METHOD SUMMARY

The liquid sample is serially extracted with methylene chloride at acid and basic pHs. The extract is dried and concentrated to one ml. The extract is then analyzed by high resolution capillary chromatography- low resolution electron impact mass spectrometry. Semi-volatile surrogate standards are introduced at the extraction. Percent recoveries of these surrogates are used as a barometer of method efficiency.

Tentatively Identified Compounds (If Applicable)

Unknown compounds are tentatively identified by comparison to the National Bureau of Standards (NBS) mass spectral library. Exclusive of any priority pollutants (specific to this analysis), surrogate standards, and internal standard peaks, 25 compounds greater than 10% of the closest internal standard were tentatively identified by the mass spectral library search and the estimated concentrations were computed.

Form 5701 3/87

United Engineers & Constructors
A Raytheon Company

Stearns Catalytic Division

6230

07/26/88

STEARNS CATALYTIC DIVISION LABORATORY DATA SUMMARY

LOG NO	SAMPLE DESCRIPTION	ANALYSIS	TREATMENT	RESULT	DATE ANALYSIS STARTED	DATE ANALYSIS COMPLETED
20712	CHALK SAMPLE	CORROSIVITY		NEG	07/25/88	07/25/88
20712	CHALK SAMPLE	EP LEACHATE	TOTAL	COMPLETE	07/18/88	07/19/88
20712	CHALK SAMPLE	GCMS/BNA + 25		SEE ATTACHED	07/25/88	07/25/88
20712	CHALK SAMPLE	GCMS/VOA + 15		SEE ATTACHED	07/18/88	07/20/88
20712	CHALK SAMPLE	IGNITABILITY		NEG	07/25/88	07/25/88
20712	CHALK SAMPLE	REACTIVITY-CN		NEG <250 mg/kg	07/19/88	07/20/88
20712	CHALK SAMPLE	REACTIVITY-S		NEG <500 mg/kg	07/19/88	07/19/88
20712	CHALK SAMPLE	TOC		90,000 ug/g	07/22/88	07/22/88
20712	CHALK SAMPLE	TOX		680 ug/g as Cl-	07/25/88	07/25/88
20712	CHALK SAMPLE	pH-DILUTED		9.1 units	07/19/88	07/19/88
20717	EP LEACHATE OF SAMPLE #20712	AA Ag	TOTAL	ND(0.01)mg/l	07/19/88	07/19/88
20717	EP LEACHATE OF SAMPLE #20712	AA As	TOTAL	ND(0.05)mg/l	07/20/88	07/20/88
20717	EP LEACHATE OF SAMPLE #20712	AA Ba	TOTAL	0.5 mg/l	07/19/88	07/19/88
20717	EP LEACHATE OF SAMPLE #20712	AA Cd	TOTAL	ND(0.01)mg/l	07/19/88	07/19/88
20717	EP LEACHATE OF SAMPLE #20712	AA Cr	TOTAL	ND(0.02)mg/l	07/19/88	07/19/88
20717	EP LEACHATE OF SAMPLE #20712	AA Hg	TOTAL	ND(0.002)mg/l	07/20/88	07/20/88
20717	EP LEACHATE OF SAMPLE #20712	AA Pb	TOTAL	ND(0.1)mg/l	07/19/88	07/19/88
20717	EP LEACHATE OF SAMPLE #20712	AA Se	TOTAL	ND(0.05)mg/l	07/20/88	07/20/88
20736	EP LEACHATE OF SAMPLE #20712	GC/HERBICIDES	2,4-D SILVEX	ND(0.5)ug/l	07/20/88	07/25/88
20736	EP LEACHATE OF SAMPLE #20712	GC/HERBICIDES	2,4,5-TP	ND(0.1)ug/l	07/20/88	07/25/88
20737	EP LEACHATE OF SAMPLE #20712	GC/PESTICIDES		SEE ATTACHED	07/21/88	07/22/88

ND = Not Detected (value reported is limit of detection)

APPROVED BY: S Van Ell

Form 5701 3/87

United Engineers & Constructors
A Raytheon Company

Stearns Catalytic Division

LABORATORY DATA SUMMARY
ORGANIC PRIORITY POLLUTANT ANALYSIS
BASE NEUTRAL ACID FRACTION BY GC/MS

LOG NO. 20712 SUMMARY NO. 6230

SAMPLE DESC. CHALK SAMPLE ANALYZED BY SWV

COMPOUND NAME	Detecuion Limit (ug/kg)	Sample Result (ug/kg
N-NITROSODIMETHYLAMINE	10,000	ND
PHENOL	10,000	ND
ANILINE	10,000	ND
2-CHLOROPHENOL	10,000	ND
BIS(2-CHLOROETHYL) ETHER	10,000	ND
1,3-DICHLOROBENZENE	10,000	ND
1,4-DICHLOROBENZENE	10,000	ND
BENZYL ALCOHOL	10,000	ND
1,2-DICHLOROBENZENE	10,000	ND
2-METHYL PHENOL	10,000	ND
BIS(2-CHLOROISOPROPYL) ETHER	10,000	ND
4-METHYL PHENOL	10,000	ND
HEXACHLOROETHANE	10,000	ND
N-NITROSO-DI-N-PROPYLAMINE	10,000	ND
NITROBENZENE	10,000	ND
ISOPHORONE	10,000	ND
2-NITROPHENOL	10,000	ND
2,4-DIMETHYLPHENOL	10,000	ND
BENZOIC ACID	50,000	ND
BIS(2-CHLOROETHOXY)METHANE	10,000	ND
2,4-DICHLOROPHENOL	10,000	ND
1,2,4,-TRICHLOROBENZENE	10,000	ND
NAPHTHALENE	10,000	ND
4-CHLOROANILINE	10,000	ND
HEXACHLOROBUTADIENE	10,000	ND
4-CHLORO-3-METHYL PHENOL	10,000	ND
2-METHYL NAPHTHALENE	10,000	ND
HEXACHLOROCYCLOPENTADIENE	10,000	ND
2,4,6-TRICHLOROPHENOL	10,000	ND
2,4,5-TRICHLOROPHENOL	50,000	ND
2-CHLORONAPHTHALENE	10,000	ND
2-NITROANIMINE	50,000	ND
ACENAPHTHYLENE	10,000	ND

ND = Not detected

LABORATORY DATA SUMMARY
ORGANIC PRIORITY POLLUTANT ANALYSIS
BASE NEUTRAL ACID FRACTION BY GC/MS
(page 2)

COMPOUND NAME	Detection Limit (ug/kg)	Sample Result (ug/kg)
DIBENZOFURAN	10,000	ND
DIMETHYL PHTHALATE	10,000	ND
2,6-DINITROTOLUENE	10,000	ND
3-NITROANILINE	50,000	ND
ACENAPHTHENE	10,000	ND
2,4-DINITROPHENOL	50,000	ND
4-NITROPHENOL	50,000	ND
2,4-DINITROTOLUENE	10,000	ND
DIETHYL PHTHALATE	10,000	ND
FLUORENE	10,000	ND
4-CHLOROPHENYLPHENYL ETHER	10,000	ND
4-NITROANILINE	50,000	ND
2-METHYL-4,6-DINITROPHENOL	10,000	ND
N-NITROSODIPHENYLAMINE	10,000	ND
4-BROMOPHENYLPHENYL ETHER	10,000	ND
HEXACHLOROBENZENE	10,000	ND
PENTACHLOROPHENOL	50,000	ND
PHENANTHRENE	10,000	ND
ANTHRACENE	10,000	ND
DI-N-BUTYL PHTHALATE	10,000	ND
FLUORANTHENE	10,000	ND
BENZIDINE	10,000	ND
PYRENE	10,000	ND
BUTYL BENZYL PHTHALATE	10,000	ND
3,3'-DICHLOROBENZIDENE	10,000	ND
BENZO(a)ANTHRACENE	20,000	ND
BIS(2-ETHYLHEXYL)PHTHALATE	10,000	ND
CHRYSENE	10,000	ND
DI-N-OCTYL PHTHALATE	10,000	ND
BENZO(b)FLUORANTHENE	10,000	ND
BENZO(K)-FLUORANTHENE	10,000	ND
BENZO(a)PYRENE	10,000	ND
INDENO(1,2,3,-cd)PYRENE	10,000	ND
DIBENZO(a,h)ANTHRACENE	10,000	ND
BENZO(g,h,i,)PERYLENE	10,000	ND

SURROGATE RECOVERY

Phenol-D6	76%	Nitrobenzene-D5	66%
2-Fluorophenol	58%	2-Fluorobiphenyl	70%
2,4,6-Tribromophenol	30%	4-Terphenyl-D14	115%

Approved By : B Jarrell

Form 5701 3/87

United Engineers & Constructors
A Raytheon Company

Stearns Catalytic Division

LABORATORY DATA SUMMARY
ORGANIC PRIORITY POLLUTANT ANALYSIS
VOLATILE ORGANICS by GC/MS

LOG NO. 20712 SUMMARY NO. 6230
SAMPLE DESC. CHALK SAMPLE ANALYZED BY: SWV

COMPOUND NAME	Detection Limit (ug/kg)	Sample Result (ug/kg)
chloromethane	10	ND
bromomethane	10	ND
vinyl chloride	10	ND
chloroethane	10	ND
methylene chloride	5	ND
trans-1,3-dichloropropene	5	ND
cis-1,3-dichloropropene	5	ND
1,1-dichloroethene	5	ND
1,1-dichloroethane	5	ND
trans-1,2-dichloroethene	5	ND
chloroform	5	21
1,2-dichloroethane	5	ND
1,1,1-trichloroethane	5	ND
carbon tetrachloride	5	ND
bromodichloromethane	5	ND
1,2-dichloropropane	5	ND
trichloroethene	5	ND
benzene	5	ND
dibromochloromethane	5	ND
1,1,2-trichloroethane	5	ND
2-chlororethylvinyl ether	50	ND
bromoform	5	ND
tetrachloroethene	5	ND
1,1,2,2-tetrachloroethane	5	ND
toluene	5	ND
chlorobenzene	5	ND
ethylbenzene	5	110
xylenes (total)	5	570
acetone	10	190
carbon disulfide	5	140
2-butanone	10	ND
vinyl acetate	10	ND
4-methyl-2-pentanone	10	ND
2-hexanone	10	ND
styrene	5	ND
acrolein	200	ND
acrylonitrile	100	ND

SURROGATE RECOVERY

Toluene-D8	129%
4-bromofluorobenzene	68%

ND = Not detected

Approved By: [signature]

United Engineers & Constructors
A Raytheon Company
Stearns Catalytic Division

METHOD REFERENCE

Stearns Catalytic Division of United Engineers and Constructors employs Method 624 for the GC/MS analysis of volatile priority pollutants in liquid matrices. This method is published in 40CFR 136 dated 9/25/87. Method SW-846; 8240 is used for soils and/or matrices (3rd edition).

METHOD SUMMARY

An inert gas is bubbled through a sample contained in a specially designed purging chamber at ambient temperature. The purgeables are efficiently transferred from the aqueous phase to the vapor phase. The vapor is swept through a sorbent column where the purgeables are trapped. After purging is completed, the sorbent column is heated and back flushed with the inert gas to desorb the purgeables onto a gas chromatographic column which are then detected with a mass spectrometer. Volatile surrogate standards are introduced at the instrument and are deuterated and/or select compounds that analytically mimic the response of certain analytes. Known concentrations of these surrogates are added to the sample and a percent recovery is calculated. This recovery is reported at the bottom of the data summary and acts as a barometer of method efficiency for the individual sample.

TENTATIVELY IDENTIFIED COMPOUNDS (IF APPLICABLE)

Unknown compounds are tentatively identified by comparison to the National Bureau fo Standards (NBS) mass spectral library. Exclusi of any priority pollutants (specific to this analysis), surrogate standard, and internal standard peaks, fifteen (15) compounds greater than 10 % of the closest internal standard were tentativel identified by the mass spectral library search and the estimated concentrations were computed.

United Engineers & Constructors
A Raytheon Company
Stearns Catalytic Division

LABORATORY DATA SUMMARY
ORGANIC POLLUTANT ANALYSIS
PESTICIDES

LOG NO. 20737 SUMMARY NO. 6230

SAMPLE DESC. EP LEACHATE OF 20712 ANALYZED BY WFC

DILUTION MULTIPLIER 1 SAMPLE MATRIX WATER

COMPOUND NAME	Detection Limit (ug/L)	Sample Result (ug/L)
a-BHC	0.004	ND
g-BHC	0.004	ND
b-BHC	0.02	ND
heptachlor	0.02	ND
d-BHC	0.004	ND
aldrin	0.004	ND
heptachlor epoxide	0.004	ND
endosulfan I	0.008	ND
4,4'-DDE	0.008	ND
dieldrin	0.008	ND
endrin	0.02	ND
endosulfan II	0.02	ND
4,4'-DDD	0.02	ND
4,4'-DDT	0.122	ND
endrin aldehyde	0.02	ND
endosulfan sulfate	0.02	ND
endrin ketone	0.02	ND
methoxychlor	0.816	ND
chlordane	0.816	ND
toxaphene	8.163	ND

ND= Not detected

Approved By: William F. Cowen

United Engineers
& Constructors Inc.
Stearns Catalytic Division
Environmental Laboratory

201 E. 10th Street
P.O. Box 434
Marcus Hook, PA 19061
215 485 5377

United Engineers & Constructors
A **Raytheon** Company

08/22/88

Mr. John Van Holle
APCI (Elkton)
329 West Main St.
Elkton, MD 21921

Subject: U.E.& C. Contract No. 99216
APCI (Elkton)
LABORATORY ANALYSIS

Dear Mr. Van Holle:

Attached is the analytical report for samples submitted to us 07/28/88.

The samples "as received" were handled as described in the report and the reporting basis is noted.

If there are any questions, please do not hesitate to contact me @ (215) 485-5377.

Very truly yours,

JVanEll FOR

Joe C. Watt

Laboratory Services Director

JCW/ibm
Attachment
6274

Form 5/01 3/87

United Engineers & Constructors
A Raytheon Company

Stearns Catalytic Division

6274

Page No. 1
08/22/88

STEARNS CATALYTIC DIVISION LABORATORY DATA SUMMARY

LOG NO	SAMPLE DESCRIPTION	ANALYSIS	TREATMENT	RESULT	DATE ANALYSIS STARTED	DATE ANALYSIS COMPLETED
20892	CHALK SAMPLE	ASH	as received	25.2 %	08/01/88	08/01/88
20892	CHALK SAMPLE	BTU		1,650 BTU/lb	07/28/88	07/28/88
20892	CHALK SAMPLE	FREE LIQUID	874 RCRA	NEG	08/03/88	08/03/88
20892	CHALK SAMPLE	TCLP BNA		COMPLETED	08/03/88	08/04/88
20892	CHALK SAMPLE	TCLP VOA		COMPLETED	08/10/88	08/11/88
21034	TCLP LEACHATE OF #20892	GCMS/BNA		SEE ATTACHED	08/18/88	08/18/88
21035	TCLP LEACHATE ZHE OF #20892	GCMS/VOA		SEE ATTACHED	08/10/88	08/17/88

ND = Not Detected (value reported is limit of detection)

APPROVED BY:

Form 3701 3/87

United Engineers & Constructors
A Raytheon Company

Stearns Catalytic Division

TOXICITY CHARACTERISTIC LEACHATE PROCEDURE-(TCLP)
SEMI-VOLATILE FRACTION BY GC/MS

LOG NO. 21034 SUMMARY NO: 6274
SAMPLE DESC. TCLP LEACHATE OF # 20892 ANALYZED BY: SWV

COMPOUND NAME	DETECTION LIMIT(ug/l)	SAMPLE RESULT (ug/l)
Bis(2-chloroethyl)ether	10	ND
Total Cresols (o,m,p)	10	ND
1,2-Dichlorobenzene	10	ND
1,4-Dichlorobenzene	10	ND
2,4-Dinitrotoluene	50	ND
Hexachlorbenzene	10	ND
Hexachlorobutadiene	10	ND
Hexachloroethane	10	ND
Nitrobenzene	10	ND
Pentachlorophenol	50	ND
Phenol	10	ND
2,3,4,6-Tetrachlorophenol *	200	ND
2,4,5-Trichlorophenol	50	ND
2,4,6-Trichlorophenol	10	ND

ND denotes not detected

* Approximate value determined by SW-846; 8270

Surrogate Recovery:

Nitrobenzene-D5	93%	Phenol-D6	53%
2-Fluorobiphenyl	117%	2-Fluorophenol	75%
p-Terphenyl-D14	109%	2,4,6-Tribromophenol	33%

Note: The TCLP Leachate contained no other compounds

Approved By: SWVanEll

United Engineers & Constructors
A Raytheon Company
Stearns Catalytic Division

TOXICITY CHARACTERISTIC LEACHATE PROCEDURE (TCLP)
VOLATILE FRACTION BY GC/MS

LOG NO. 21035 SUMMARY NO: 6274
SAMPLE DESC. TCLP LEACHATE ZHE OF #20892 ANALYZED BY: SWV

COMPOUND NAME	DETECTION LIMIT (ug/l)	SAMPLE RESULT (ug/l)
Acrylonitrile	5	ND
Benzene	5	ND
Carbon Disulfide	5	ND
Carbon Tetrachloride	5	ND
Chlorobenzene	5	ND
Chloroform	5	ND
1,2-Dichloroethane	5	ND
1,1-dichloroethylene	5	ND
Isobutanol	1000	ND
Methylene Chloride	5	ND
Methyl ethyl ketone	10	ND
1,1,1,2-tetrachloroethane	5	ND
1,1,2,2,-tetrachloroethane	5	ND
Tetrachloroethylene	5	ND
Toluene	5	ND
1,1,1-Trichloroethane	5	ND
1,1,2-trichloroethane	5	ND
Trichloroethylene	5	ND
Vinyl chloride	10	ND

ND denotes not detected

Surrogate Recovery:

1,2-Dichloroethane-D4	85%
Toluene-D8	98%
4-Bromofluorobenzene	92%

Note: There were no other volatile compounds present in the extract.

Approved By: SWVan Ell

APPENDIX B

CECIL COUNTY HEALTH DEPARTMENT RECORDS DOCUMENTING RELEASES OF NONHAZARDOUS WASTEWATERS FROM AIR PRODUCTS INTO SURFACE WATERS

Air Products

September 8, 1972

Mr. R. R. Reed, Administrator
for the Town of Elkton
Town Hall
Elkton, Maryland 21921

Dear Dick:

Please refer to my letter of August 19, 1972 to Water Resources, a copy of which was sent to you, Mr. Brunori's answer to me of September 1, 1972, a copy of which we are enclosing, and Mr. Wasowicz's letter to you of August 17, 1972.

Looks like we drew a complete blank this time.

Very truly yours,

David S. Moore
Supervising Sanitarian

DSM:vap
Enc.(1)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

September 1, 1972

Mr. David Moore
Supervising Sanitarian
Cecil County Health Department
Elkton, Maryland 21921

Dear Mr. Moore:

In regard to your letter of August 18, 1972, concerning the discharge of industrial waste from Air Products and Chemicals, Inc., to the Elkton STP, the following guide lines are given.

The primary agency to handle and coordinate the problem of improper waste loading to a local STP is the State Health Department. The Water Resources Administration will assist in any way possible and attend any meeting to discuss the problem. However, the State Laws and Regulations exclude our control over any waste discharged to a sanitary system.

Mr. Joseph P. Lewandowski, Chief, Water Quality Control, has contacted Mr. Frank Wasowicz of the State Environmental Health Services, Head of Operations Section, and a copy of Mr. Wasowicz's letter to the town of Elkton has been sent to the both of us.

As stated in that letter, a sewer ordinance or other agreement with the company to limit waste discharges to an acceptable level is the best way to proceed. The County and State Health Departments can advise the town of Elkton on setting up limits for various parameters in the ordinance. The Water Resources Administration will assist in any way possible in this regard.

Very truly yours,

Carlo R. Brunori

Carlo R. Brunori
District Supervisor

CRB:jmb
cc: Mr. Frank Wasowicz

August 18, 1972

Mr. Carlo R. Brunori
District Watershed Manager
Department of Water Resources
State Office Building
Annapolis, Maryland 21401

Dear Mr. Brunori:

On July 26, 1972 a substantial amount of deleterious industrial wastes was discharged into the Town of Elkton's sanitary sewers and ultimately reached the sewage treatment plant. Due to the alertness on the part of the Elkton Sewerage Disposal Plants personnel, serious consequences were averted. The deleterious material came from Air Products and Chemicals, Inc.

We have had a number of problems in the past with this company discharging these wastes into the Elkton sanitary sewers. I believe that you have a considerable file on this plant, some of which may date back to the time when Air Products and Chemicals, Inc. was known as Colton Chemical.

We would appreciate your reviewing these records. Following this we suggest that a meeting be arranged with the representatives of Air Products and Chemicals, Inc., your department and the Cecil County Health Department. The Town of Elkton requested that the Health Department, or some responsible agency, take necessary action to preclude the possibility of there being future deleterious industrial waste discharges.

The Town of Elkton is anxious to know as soon as possible what action has been taken or is being contemplated.

Very truly yours,

David S. Moore

David S. Moore
Supervising Sanitarian

DSM:vap
cc Town of Elkton

Follow up 2 weeks
Sept. 1st

State of Maryland

DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Neil Solomon, M.D., Ph.D., Secretary

ENVIRONMENTAL HEALTH ADMINISTRATION
610 N. HOWARD STREET • BALTIMORE, MARYLAND 21201 • Area Code 301 • 383- 2768

August 17, 1972

Mayor and Commissioners of
the Town of Elkton
Elkton, Maryland 21921

Re: Elkton - Sewerage
Cecil County

Gentlemen:

On July 26, 1972, a substantial amount of deleterious industrial wastes was discharged into the Town's sanitary sewers and ultimately reached the sewage treatment plant. Serious consequences were averted by the very prompt and commendable action on the part of your plant personnel, for the wastes would have rendered the treatment facility virtually useless for a period of time and severely violated the water quality of Big Elk Creek.

We have been informed that similar discharges have occurred in the past. Because of the serious consequences that could arise in the event prompt corrective action cannot be taken, it becomes absolutely imperative that industrial waste discharges be controlled by enforcement of an ordinance if you have such statutory authority. If the Town does not have this authority, the enactment and enforcement of an effective industrial waste ordinance becomes essential, and we urge that you take prompt steps towards the preparation and enactment of appropriate legislation.

We would appreciate hearing from you on the current situation in this matter.

Very truly yours,

Frank J. Wasowicz

Frank J. Wasowicz, P.E.
Head, Operations Section
Division of Water and Sewerage

FJW:fmz
cc: John M. Byers, M.D.

October 24, 1972

At about 4:00 P.M. Sunday, October 22, 1972 I received a telephone call from Robert R. Reed, Administrator, Town of Elkton, advising me that a yellow substance was being discharged into the Elkton Sewerage Disposal Plant causing discoloration throughout the entire Sewerage Plant.

Mr. Reed, Mr. Adams from Town Maintenance, and Mr. Wright, Superintendent of the Sewerage Plant, and I met at the plant.

We observed the condition to be as stated, however, outside the fact that the sewage coming into the plant was of a yellow color as was also the effluent leaving the plant, no other adverse effects in the plant was observed. Samples were collected by the plant operator to be submitted to our Central Lab in Baltimore by me on October 25, 1972 when I am scheduled to be in Baltimore. The pH taken at the plant was 6.9.

We visited Air Reduction Plant on West Main Street in Elkton and found the yellow discharge to be coming from their plant. A pH taken from their plant showed a pH also of 6.9. Mr. Gassaway, plant manager, was called at his home in Glen Farms and came to the plant. The plant treats their waste and endeavor to discharge a near neutral pH. I requested the plant to shut off their discharge of waste which they immediately did. No sample was collected at Air Reduction Plant to compare with the color at the Sewerage Disposal Plant. After we receive our report from the Lab we will discuss possible procedure with the Environmental Health Administration and the Department of Water Resources.

FSM:vap

cc Mr. R. R. Reed
cc Dr. Byers
cc Mr. W. McLean Bingley
cc Dept. of Water Resources
File cc Air Reduction File
" cc Elkton file
cc Dave Dailey D.D

Cecil County Health Department

MEMORANDUM

To: File

Date: Sept. 18, 1973

From: D. S. Moore

Re: Air Reduction

On September 17, 1973 Mr. Fernangle telephoned me upon his return from vacation. He pretty well confirmed information we already had. Stated he did not think it would happen again. I believe he is going to call Dick Reed and Harry Mann from West Main St. who was one of the complainants. Close case and file.

DSM:vap

Cecil County Health Department

MEMORANDUM

To: File Date: September 4, 1973

From: D. S. Moore Re: Air Reduction

About 6:20 A.M. Sunday, September 2nd, I received a call from the Elkton Town Police about a pungent odor from Airco.

Visited the site about 6:35 A.M. A thunderstorm was in progress with heavy rain by the time I reached the plant, which would tend to clear up the odor. I talked to the night foreman, Mr. White. He advised me that the plant "Blew a Batch". This apparently means that a batch of the product got too ho in processing causing odors to float across West Main St. and into homes of residences. The process had been shut down by the time I got there and the odor was only slight; however, it might take some time for it to clear up in the houses.

I reported my findings to the Town Police and returned home about 7:00 A.M.

The product is reportedly used in some type of food preservative and is, therefore, harmless. Mr. White advised me that Mr. Gassaway is no longer wit the plant. Mr. Fred Fernangle is now manager but is on vacation.

DSM:vap
cc Mr. R. R. Reed

CECIL COUNTY HEALTH DEPARTMENT

Date ....

THE ATTACHED PAPERS ARE REFERRED

To ....

By ....

............Please note and file.

............Please note and return to me.

............Please note and see me about this ....

............Please answer and send me copy of your letter.

............Please prepare reply for my signature.

............Please take charge of this.

............To be signed.

............Immediate action desired.

............For your information.

............Your comments, please.

............Please take charge and report disposition.

Remarks: the odor may only slightly however it might take some time for it to clear up in the homes. I reported my

CECIL COUNTY HEALTH DEPARTMEN

Date ....

THE ATTACHED PAPERS ARE REFER

To ....

By ....

............Please note and file.

............Please note and return to me.

............Please note and see me about this ....

............Please answer and send me copy of your

............Please prepare reply for my signature.

............Please take charge of this.

............To be signed.

............Immediate action desired.

............For your information.

............Your comments, please.

............Please take charge and report dispositio

Remarks: in process [illegible] orders the plant [illegible] West Main St. and into homes of residences. The plant had been shut down the time I got there a[illegible]

[illegible] to the Town
Police and returned
home about [illegible]

[illegible] reality [illegible]
the [illegible] used in
[illegible] of [illegible]
[illegible] as
harmless. [illegible]
while [illegible]
advised me that
[illegible] with the plant
in Fuel (formula) is
[illegible] but is a

D. D. Moore

About 6:20 [illegible]
received a call from
the Elkton Town Police

[illegible]

I visited site about
6:35. A thunderstorm
was in progress with
heavy rain by the time
I reached the plant
which would tend [illegible]
Clean up the odor. I
talked to the night [illegible]
Mr. White. He informed [illegible]
that the plant Blew
Patch. This apparently
means that a batch [illegible]
The product got [illegible]

AIR PRODUCTS

Cecil County Health Department

MEMORANDUM

To: W. A. Sumner Date: 11/12/73

From: D. Dailey Re: Elkton Sewer Plant

I met Mr. Belkov and Sat Agrawal from the State Office and Mr. Arthur Wright, the Elkton Sewer Plant operator, at the Elkton Sewer Plant to discuss the effluent that the Air Products Co., located on West Main Street, Elkton, Md., is dumping into the sewer line.

After meeting at the plant, we visited Air Products Co. and talked to Mr. Fernagel, the Plant Supervisor. Mr. Fernagel showed us the method they use to treat for pH and also how they collect the effluent before they dump it into the sewer line. Mr. Fernagel told Mr. Wright to call the plant the next time he observed the white color coming into the sewer plant so he could come down and observe it and also sample.

The meeting actually did not accomplish anything other than to let Mr. Fernagel know that the Health Department is behind the Elkton Sewer Plant.

WCS

October 1, 1973

(Dictated 9/28/73)

Mr. R. R. Reed, Administrator
Town of Elkton
Elkton, Maryland 21921

Dear Dick:

At about 7:20 P.M. on September 20, 1973 I received a complaint regarding odors on West Main Street coming from Airco. This complaint was from the Elkton Town Police. I arrived on the scene at about 7:30 P.M. but could not detect any odor driving between Schneiders Restaurant and Jeffers Street. I Parked the car near intersection of Main and Jeffers Street and walked east nearly to traffic light at junction of Main and Landing Lane. No odor was detected, however, when I got nearly opposite the plant on my return to the car, I did detect a very slight odor.

On the Airco property I did detect some odor. In discussing the odor complaint with a plant representative, he stated that some odor had escaped due to overheating one of the batches probably between 7:00 and 7:15 P.M. He felt that it might be possible that a detectable odor was present on Main Street at the time I received the complaint.

Very truly yours,

David S. Moore
Supervising Sanitarian

DSM:vap

Summer
Nov

Blemfire
AIRCO

4/27/78
Ben's Gutt Dis

I investigated complaint on 4/27/78
I found a white milky substance discharg
in Ben's Gutt at Mackall Street, Elkton, Md.
On 4/28/78 checked Ben's Gutt a
d found it still running a white milky substa
I visited Airco located on W. Main St. Elkt
Md. and talked to Mr. Fernagel the plant ma
After some investigation we found a line disc
ing into the storm sewer which discharge
to Ben's Gutt.

Mr. Fernagel stated he would tak
the necessary steps to provide a temporary corr
until a permanent one can be made.

Mr. Reed notified by phone on 4/28/

D. Dailey

Please return to me
for follow up.

OK
Blemfire me
informed WR
398-2190

5/8/78

Checked with Mr. Fernagel on above date. Leak has
fixed but there is still some laying in pipe. After next h
rain pipe should be flushed out. Will check then.
D. Dailey

(over)

Cecil County Health Department

MEMORANDUM

To: Mr. Sumner

Date: April 29, 1974

From: [illegible]

Re: Ben's Gut

Called in at 11 A.M. to state he checked this location and there is a white milky substance. It might be from Airco as it appears to be the same as previously seen in this location. He does not think it is coming from General Development as Mr. Reed suggested. Also, he did not have any more time to spend on this as he had appointments made which he had to keep. He hopes that the above information will be of help to you.

DJD:vap

CECIL COUNTY HEALTH DEPT.

To: Mr. Sumner

Date 4/29/74 Time 3:10 A.M.

WHILE YOU WERE OUT

[redacted], Town of Elkton

Of [redacted]

Phone No. Ext. No.

☒ Telephoned ☐ Wished to be called

☐ Returned your call ☐ Will call again

☐ Was in to see you ☐ Will return about

Mack Hall Street

Remarks There is discoloration where Ben's Gut goes into Big Elk Creek. Could maybe be from General Development old plant.

VAP

Signed

CECIL COUNTY HEALTH DEPT.

Mr. Sumner

Date April 29, 1974 Time 3:30 P.M.

WHILE YOU WERE OUT

[redacted]

Of Town of Elkton

Phone No. [redacted] Ext. No.

☒ Telephoned ☒ Wished to be called

☐ Returned your call ☐ Will call again

☐ Was in to see you ☐ Will return about

Remarks He wants to talk to you about Ben's Gut. Also, the Town Police to a sample from there ~~it~~ last night at 10 P.M. I told him you were tied up ~~but would call him when you had time~~. not tonight, then tomorrow.

VAP

Signed

5/13/74

Checked Ben's Gatt on above date and fou it running clear. Checked with Mr. Fernagel and fou everything operating satisfactory.

Case Closed

D. Dailey

OK Thanks Wes

xxxxx
598-51(

October 26, 1979

Earl S. Quance, P.E.
Program Administrator
Water and Sewage Control Programs
Department of Health & Mental Hygiene
Environmental Health Administration
201 West Preston Street
Baltimore, Maryland 21203

Reference: Air Products & Chemicals, Inc.

Dear Mr. Quance:

Please refer to the following enclosures:

1 - August 27, 1979 Order on industrial waste disposal.

2 - Letter to Dr. Buck from Air Products.

Dr. Byers has inquired regarding any possible hazard to the Elkton Sanitary System from this discharge. I felt this would be an appropriate question to be directed to your office and request your comments on the matter.

Very truly yours,

William A. Sumner

William A. Sumner
Director
Environmental Health Services

WAS:vap

Enclosures listed above.

APPENDIX C

NOTES AND ANALYTICAL RESULTS FROM PCB TRANSFORMER LEAK

State of Maryland
Department of Health and Mental Hygiene
Office of Environmental Programs
201 West Preston Street, Baltimore, Maryland 21201

Report of Observations

Type of Inspection/Observations: CHS Facility Date 6/21/88

Facility Name: Air Products

Remarks: Inspection indicated that there are 4 transformers located on the site, outside in a fenced area. These are:

	Capacitor S/N	dielectric capacity	11/18/87 analysis	3/17/88 analysis	
(1)	STD 153540	75 gal	39 ppm	62 ppm	Leak
(2)	West 2320204	50 gal	4 ppm	12 ppm	"
(3)	Line Mnt 1529660	50 gal	94	161	"
(4)	West SCF 4H024 0607	105 gal.		1	Ok

Leaks in two transformers were noted on Fri 6/17/88. The plant was then scheduled for a shutdown Wed. 6/22/88 so that Westinghouse could drain and service the transformers.

Transformers # 1, 2, and 3 above will be decontaminated flushed, serviced, and leaks repaired by Westinghouse. Air Products will then scrub & recondition with [illegible]. Mr Anderson indicated it was his intention to remove poor leaking transformers to a depth of approx 2' to remove all contaminated soil. I indicated to him that I will check on the contaminated soil removal and analysis requirements and advise him by 6/22/88.

All contaminated oil, soil, absorbent, rags will be placed in drums and shipped on manifest to either SCA Inc in Model City, NY or Rollins Inc. Deer Park, Texas

CHS Facility Inspector

Observer: _____ Person Interviewed: Ellis Anderson

DHMH 3879

State of Maryland
Department of Health and Mental Hygiene
Office of Environmental Programs
201 West Preston Street, Baltimore, Maryland 21201

Report of Observations

Type of Inspection/Observations: CHS Facility Date 6/23/8

Facility Name: Air Products Inc.

Remarks: 3 Transformers were drained, servi
and refilled by Westinghouse. The concr
pads were cleaned with 111 Trichlorethane.
Contaminated soil adjacent to the pads w
removed approx 6" beyond and below on
visual contamination. Split samples were
taken of soil in cleaned up areas near
the leaking transformers and a backgrou
split sample was also taken.
All contaminated dielectric oil, Rags
and absorbent used in clean-up and remo
contaminated soil was placed in labeled dr
for disposal

CHS facility Inspector
Bernie Di-[illegible] 383-[illegible]

Observer: Person Interviewed: Ellis Anders

DHMH 3679

Air Products and Chemicals INC

329 WEST MAIN STREET, P. O. BOX 36, ELKTON, MARYLAND 21921 • TELEPHONE: 301 EXPORT 8-2190

27 June 1983

Mr. Ronald Nelson, Director
Waste Management Administration
Office of Environmental Programs
Dept. of Health & Mental Hygiene
201 W. Preson Street
Baltimore, Maryland 21201

Dear Mr. Nelson:

This letter is in response to your Mr. Art Caple's telephone request to Ellis Andersen of my staff. Mr. Andersen phoned Mr. Caple on 21 June 1983 to inform him of the incident discussed below. Mr. Caple requested a written response, citing COMAR 10.51.05.04G(10). We do not believe this regulation specifically applies to the incident discussed below because the spill is not from our hazardous waste facility. Also, according to COMAR 10.51.05.04B (2), the contingency plan (and associated reporting) only need to be carried out when there is a release "which could threaten human health or the environment." We would like to stress that this incident was identified and resolved at our own volition and appears to have had no adverse impact on the environment. However, we are complying with the request, as made.

(a) OWNER-OPERATOR

Air Products & Chemicals, Inc.
P. O. Box 538
Allentown, Pa. 18105
215-481-4911

(b) FACILITY

Air Products & Chemicals, Inc.
329 West Main Street
Elkton, Md. 21921
301-398-2190

(c) INCIDENT

Date: 17 June 1983
Time: 2:00 P.M.
Type: Discovery of two transformer oil leaks

(d) MATERIALS INVOLVED

NAME	QUANTITY	FROM
62 ppm PCB in Oil	Est. < 1 gal.	Standard Transformer (#153940)-Tap Charger Handle
12 ppm PCB in Oil	Est. < 1 qt.	Westinghouse Transformer (#2220204)-Sight Glass

(e) INJURIES
None

(f) ENVIRONMENTAL ASSESSMENT

This localized leak of a small quantity of very slightly PCB contaminated transformer oil has been fixed and cleaned. No adverse environmental impact appears to have occurred.

(g) RECOVERED MATERIAL

The following wastes were collected during clean-up and oil-flushing. A third, non-leaking, transformer was flushed of 161 ppm PCB in oil. The entire seven drum quantity of Transformer Oils was from controlled Transformer flushing to reduce Transformer PCB concentration. All drums will be disposed of through a fully permitted and Air Products approved hazardous waste disposal facility. They are presently being stored on our Hazardous Waste Drum Storage Pad.

# Drums	Drum Size	Contents
1	85 Gal.	PCB Contaminated Material
1	55 Gal.	(Earth, stone & rags contaminated w/<161 ppm PCB in oil &/or 1, 1, 1 - Trichloroethane)
7	55 Gal.	Transformer Oils (contaminated w/<161 ppm PCB &/or 1,1,1-Trichloroethane)

If you have any questions, or require further information, please feel free to call me.

Sincerely,

Joseph F. Marschhauser

J. F. Marschhauser
Plant Superintendent

BCC: W. H. MacNAIR
D. A. GUALLS

arl

BRANDT
ASSOCIATES INC.

July 11, 1983

Mr. Ellis Anderson
Air Products & Chemicals Co.
329 W. Main Street
Elkton, MD 21921

Dear Ellis:

As discussed in our telephone conversation today, I am sending you the details of the PCB analyses of your soil samples.

Sample ID/ BAI #	PCB Area	PCB Conc., ppb
Westinghouse/ 240-178-102	179.65	80
Standard/ 240-178-103	157.41	71
Control/ 240-178-104	198.78	90

Results were based on a 60 ppb. PCB 1260 standard, having an area of 133.25.

Analytical results are being reported as < 1 ppm. in our standard report format.

If you have any further questions, please feel free to call.

Yours truly,

Edward Barsum (ppm)

Edward Barsum

BRANDT ASSOCIATES, INC.

CONSULTING ANALYTICAL CHEMISTS
P.O. BOX 7571, NEWARK, DE 19714

ANALYTICAL REPORT NO. 240.19511

DATE 7/14/83

SAMPLE NOS. 240-178-102 TO
RECEIVED 6/27/83
SAMPLED BY CUSTOMER

MR. E. ANDERSEN
AIR PRODUCTS & CHEMICALS, INC.
329 W. MAIN ST.

ELKTON, MARYLAND 21921

Richard D. Bleam (Pr.

RICHARD D. BLEAM, TECH. DIREC

ID.: BAI

LOG	SAMPLE ID	DATE	TIME
102 =	WESTINGHOUSE	6/23	
103 =	**STANDARD**	**6/23**	
104 =	CONTROL	6/23	

BAI CODE	ANALYSIS	UNITS	COMPLETED DATE	BY	102	:	103	:	104
770.9	PCB	[illegible]	7/8	[illegible]					

(A) = MG/KG

12:05 PM SPILL 6/21/83

~~398-2190~~

Ellis Anderson
Air Products
1 PCB Transformer
62 ppm
1 other 4+12
ppm PCB
Shut down tomorrow
+ Westinghouse will repair
Did not give them
specifics on clean up
Will talk to Lou Martino
Wed. Bernie D. will visit
site today
AC

Sequence No. _____

Maryland

DEPARTMENT OF HEALTH AND MENTAL HYGIEN
OFFICE OF ENVIRONMENTAL PROGRAMS
WASTE MANAGEMENT ADMINISTRATION

ROBLEM / ACTIVITY FORM

2:05 pm Received by: A. Caple

): letter, phone, in person, other _____

N Phone No. 398-2190

Chemicals City/State md

y:

Body of Water _____

4. Nature of Problem/Activity (check one):

___ Landfill	___ Open Dumping	___ Aquatic-Life Kill
___ Sludge	___ Groundwater Problem	___ Reschedule Previous Action
___ DHS	___ Sedimentation Problem	___ Other: _____
___ Point Source Discharge	___ Surface Water Quality Problem	

5. Description of Complaint: 1 PCB TRANSFORMER, 62 ppm
1 OTHER, 4+12 ppm PCB.

6. Action Taken: WILL SHUT DOWN ON 6/22/83 & WESTINGHOUSE WILL REPAIR. LOU MARTINO/HWD WILL BE CONTACTED ON 6/22/83. BERNIE JEMKOWSKI WILL VISIT SITE ON 6/21/83.

Person Taking Action: _____

If referred to another agency, identify: _____

7. Reschedule Follow-Up: ___ Yes ___ No Date __/__/__

8. Total time spent on this Problem/Activity: ___ ___ Hours ___ ___ Min.

Reviewed by: _____ Date __/__/__ Closed __/__/__

DHMH 3864

state of Maryland

Sequence No. ____ ____ ____ ____

DEPARTMENT OF HEALTH AND MENTAL HYGIEN
OFFICE OF ENVIRONMENTAL PROGRAMS
WASTE MANAGEMENT ADMINISTRATION

PROBLEM / ACTIVITY FORM

1. Date: 6/21/93 Time: 12:05 pm Received by: A. Caple
   How Complaint Received (circle one): letter, phone, in person, other _____

2. Complainant's:
   Name Ellis Anderson Phone No. 398-2190
   Address AIR Products + Chemicals City/State md

3. Specific Location of Problem/Activity:
   County _____ Body of Water _____
   Details of Location _____

4. Nature of Problem/Activity (check one):

___ Landfill	___ Open Dumping	___ Aquatic-Life Kill
___ Sludge	___ Groundwater Problem	___ Reschedule Previous Action
___ DHS	___ Sedimentation Problem	___ Other: _____
___ Point Source Discharge	___ Surface Water Quality Problem	

5. Description of Complaint: 1 PCB TRANSFORMER 62 ppm
   1 OTHER 4412 ppm PCB.

6. Action Taken: WILL SHUT DOWN ON 6/22/93 + WESTINGHOUSE WILL REPAIR. LOU MARTINO/HWD WILL BE CONTACTED ON 6/22/93. BERNIE TOMKOWSKI WILL VISIT SITE ON 6/21/93.
   _____ Person Taking Action: _____
   If referred to another agency, identify: _____

7. Reschedule Follow-Up: ___ Yes ___ No Date __/__/__

8. Total time spent on this Problem/Activity: ___ ___ Hours ___ ___ Min.

Reviewed by: _____ Date __/__/__ Closed __/__/__

DHMH 3864

MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratories Administration
Howard and Biddle Streets
P.O. Box 2355, Baltimore, Maryland 21203

Lab. No. 83[illegible]

Hazardous Waste Laboratory
Organic Analysis Report Form

4:00 AM Priority _____

Collector Bernard Dankoski 6/23/83 Sample Source Air Products Inc. - 90
Name/time/date Towson - MST. 22202

Sample ID No. BD-02 Preservative Used ice

Sample Alert Soil sample taken after clean-up of 12 ppm oil

Chain of Custody sample possession

From Bernard Dankoski 6/23/83 4:00 to F. Newton 13:25/6-24-83
Name/time/date Name/time/date

From _____ to _____
Name/time/date Name/time/date

From _____ to _____
Name/time/date Name/time/date

EP Toxicity Organics

	PPb
endrin	
lindane	
methoxychlor	
toxaphene	
2, 4-D	
2, 4, 5-TP(silvex)	

Organics Analysis

☐	*Purgeable halocarbons	
☐	*Purgeable aromatics	
☐	*Acrolein & Acrylonitrile	
☐	*Phenols	
☐	*Phthalate esters	
✓	*Organochlorine Pesticides & PCB	
☐	*Nitroaromatics & Isophorone	
☐	*Polynuclear aromatic hydrocarbons	
☐	*Haloethers	
☐	*Chlorinated hydrocarbons	

*see other side for specific compounds

_____
_____

☐ Organic identification and comparison _____

☐ oil and grease _____ PPM

Section Chief: _____ Date: _____ Verified By: _____

MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratories Administration
Howard and Biddle Streets
P.O. Box 2355, Baltimore, Maryland 21203

Lab. No.

Hazardous Waste Laboratory
Organic Analysis Report Form

Priority _____

Collector Bernie Dombowski 6/23/83 Sample Source Air Products - backgr
Name/time/date

Sample ID No. BD-03 Preservative Used ice

Sample Alert Background soil Sample

Chain of Custody sample possession

From Bernie Dombowski 6/23/83 11:00 to F. Newton/6-24-83/3:25
Name/time/date Name/time/date

From _____ to _____
Name/time/date Name/time/date

From _____ to _____
Name/time/date Name/time/date

EP Toxicity Organics

	PPb
endrin	
lindane	
methoxychlor	
toxaphene	
2, 4-D	
2, 4, 5-TP(silvex)	

Organics Analysis

☐	*Purgeable halocarbons	
☐	*Purgeable aromatics	
☐	*Acrolein & Acrylonitrile	
☐	*Phenols	
☐	*Phthalate esters	
✓	*Organochlorine Pesticides & PCB	
☐	*Nitroaromatics & Isophorone	
☐	*Polynuclear aromatic hydrocarbons	
☐	*Haloethers	
☐	*Chlorinated hydrocarbons	

*see other side for specific compounds

Analyse ~~01 and 02 first. If~~ found in those than analysis of 03 no PCB is is not necessary

☐ Organic identification and comparison _____

☐ oil and grease _____ PPM

Section Chief: _____ Date: _____ Verified By: _____

MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratories Administration
Howard and Biddle Streets
P.O. Box 2355, Baltimore, Maryland 21203

Lab. No. 83025

Hazardous Waste Laboratory
Organic Analysis Report Form

4:00 PM

Priority _____

Collector Bernard Dombowski 6/23/83 Sample Source Air Products - neoe
Name/time/date Standard #3940 Transform

Sample ID No. BD-01 Preservative Used ice

Sample Alert Soil sample taken after cleanup of 62 ppm PCB oil

Chain of Custody sample possession

From Bernie Dombowski 6/23/83 4:00 PM to F. Newton 13:25 6-24-83
Name/time/date Name/time/date

From _____ to _____
Name/time/date Name/time/date

From _____ to _____
Name/time/date Name/time/date

EP Toxicity Organics

	PPb
endrin	
lindane	
methoxychlor	
toxaphene	
2, 4-D	
2, 4, 5-TP(silvex)	

Organics Analysis

- ☐ *Purgeable halocarbons
- ☐ *Purgeable aromatics
- ☐ *Acrolein & Acrylonitrile
- ☐ *Phenols
- ☐ *Phthalate esters
- ☑ *Organochlorine Pesticides & PCB
- ☐ *Nitroaromatics & Isophorone
- ☐ *Polynuclear aromatic hydrocarbons
- ☐ *Haloethers
- ☐ *Chlorinated hydrocarbons

*see other side for specific compounds

☐ Organic identification and comparison _____

☐ oil and grease _____ PPM

Section Chief: _____ Date: _____ Verified By: _____

STATE OF MARYLAND
DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratories Administration
201 W. Preston Street
J. Mahoon Joseph, Ph.D., Director

TRACE ORGANICS LABORATORY
VOLATILE ORGANICS ANALYSIS

BOTTLE NUMBER S8709101-1

Cecil Co
Name of County

SOURCE OF SAMPLE Air Products Storage PAD COLLECTOR DEHM S. STANG

SAMPLE TYPE: Van DISTRIBUTION _____ SOURCE _____ OTHER (specify) _____

Community _____ noncommunity _____ private _____

Landfill observation well _____ stream _____ tidal waters _____

Industrial effluent _____ STP sampling station _____ STP effluent _____

Chlorinated _____ preserved with thiosulfate _____

Reason for submitting sample: Trihalomethane Survey _____

Suspected Industrial Chemical Contamination _____

Suspected Petroleum (gasoline, etc.) Contamination _____

Other (specify) Clean Closure of CH5 Ocean Storage PAD

REMARKS:

CHAIN of CUSTODY NAME/ TIME/DATE Joseph L. Stang 08:45 9/14/87 TO: Chuck Thomas 0845 9-14

TO:

1	2 3	4 5 6 7	8 9 10 11	12 13 14 15 16 17	18 19
TRANS TYPE	COUNTY: C E	PLANT NO	SAMPLING STATION	DATE COLLECTED: 0 9 1 0 8 7	CARD NO

FIELD pH (20 21 22) _____ FIELD RESID. CHLORINE: FREE (23 24) _____ TOTAL (25 26) _____ 0915I1180

624

Purgeable Halocarbons (EPA [illegible])				Purgeable Aromatics	
Chloromethane	<1	trans-1,3-Dichloropropene	<1	Benzene	<
Bromomethane		Trichloroethene		Toluene	
Dichlorodifluoromethane		Dibromochloromethane		Ethylbenzene	
Vinyl chloride		1,1,2-Trichloroethane		Total Xylenes	<
Chloroethane		cis-1,3-Dichloropropene		Total Purgeable Hydrocarbons	
Methylene chloride		2-Chloroethylvinylether		Tetrahydrofuran	
Trichlorofluoromethane		Bromoform		(2-Butanone) (MEK)	
1,1-Dichloroethene		1,1,2,2-Tetrachloroethane		Methylisobutylketone (MIBK)	
1,1-Dichloroethane		Tetrachloroethene		Acrolein	
trans-1,2-Dichloroethene		Chlorobenzene		Acrylonitrile	
Chloroform		Total Trihalomethanes			
1,2-Dichloroethane		Other Purgeable Organics: ND			
1,1,1-Trichloroethane					
Carbon Tetrachloride					
Bromodichloromethane					
1,2-Dichloropropane					

Results reported in micrograms per liter (parts per billion)

DATE RECEIVED SEP 11 1987 DATE REPORTED SEP 22 1987 CHEMIST Mark 881 LAB. NO.

DHMH 749 3/85

VRT :

In order to achieve clean-up to within 1 ppm, I had Air Products remove all visibly oily soil plus 6" beyond, at both the 62 ppm PCB transformer and the 12 ppm PCB transformer.

Split soil samples were taken at both transformers plus one background sample.

Bernie
6/27/83

[redacted]

[redacted]

APPENDIX D

INSPECTION REPORT AND DOCUMENTATION FROM REMOVAL OF ABANDONED UNDERGROUND GASOLINE TANK

TORREY C. BROWN, M.D.
SECRETARY

JOHN R. GRIFFIN
DEPUTY SECRETARY

JAMES W
DIRECT

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS, MARYLAND 21401

January 7, 1987

Air Products and Chemical, Inc.
329 W. Main Street
Elkton, Maryland 21921

Attn: William J. Stueben

Re: Two below ground systems removed at site

Dear Mr. Stueben:

As per your request, please find a copy of my investigation report in regards to the two tanks that were removed from the ground at your plant in Elkton.

If I can be of further assistance to you, please feel free to contact me at the number listed below.

Sincerely,

Neil A. Jones

Neil A. Jones, Inspector
Oil Control Division

NAJ:rmg

Enclosure: cited

(301) 974-2104
TTY FOR DEAF-BALTIMORE 60-2500 WASHINGTON METRO 565-0450

OIL CONTROL DIVISION

FIELD INVESTIGATION

Time arrived on-scene: 1 2 4 5 24 Hr.

Facility Name: Air Products and Chemical, Inc. Permit Number: [redacted]

Location: 329 W. Main Street Elkton, MD. 21921 County: CE

Contacted: William J. Stueben Title: Superintendent - Safety

Dennis A. Johnson Plant Superintendent

Evidence Collected: ___Photographs Taken ___Samples Taken ✓Visual Observation

Site Complaint Issued: ___Yes ✓No Site Compalaint Number: _____

OBSERVATIONS: This writer visited the above site this date and time in reference to two below ground tanks removed from ground. Writer contacted Mr. Stueben and we visually inspected a 6500 gallon tank. There were no signs of any preforations. This tank appears to be in good shape. Mr. Stueben stated there were no signs of any contamination in the excavation. This tank is located on north side of property.

The second tank consisted of a 55 gallon drum that was removed from southeast side of property. This drum was pumped out sometime ago because Company converted to above ground storage. The product was pumped out through a tubing inside of drum. The tubing did not go to bottom of drum so some product was still in the drum. The drum had preforations in areas above product level. Mr. Stueben stated soils were contaminated in excavation and contaminated soils were removed and stored in drums and will be dispose of properly. Visited site where drum was removed and excavation was still open and there was water in excavation with no signs of contamination. Writer feels confident that all contaminated soils were removed. No other implementations will be require in relation to these systems.

SIGNATURE: Neil A. Jones For more space use reverse side.

CASE CLOSED

R/WRA-22

INTEROFFICE
MEMORANDUM

Date [redacted]

Subject Abandoned Underground [redacted]

To D. A. Johnson

(Location, Organization, or Department)

From D. A. Qualls

(Location, Organization, or Department)

cc: Equipment File
B. Stueben

The following underground abandoned tanks were removed from the ground on 11/15/86:

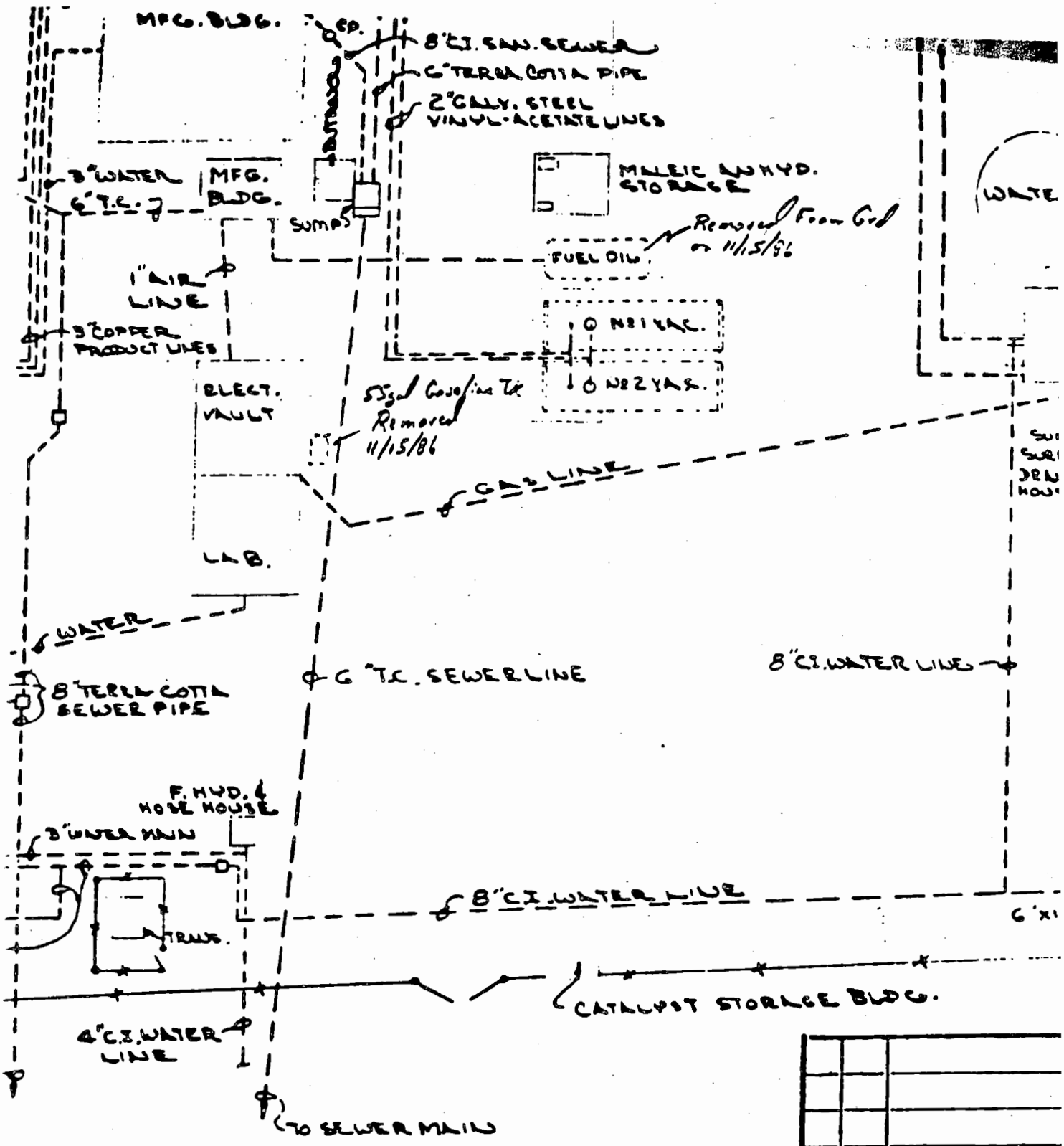
1. FB-103 6500 gallon abandoned oil tank located immediately north of the VAc storage tanks.

2. FB-524 55 gallon abandoned gasoline tank located under paving immediately east of the electrical vault and just south of the concrete door pad.

See attached plant underground plot plan for detailed location of tanks.

D. A. Qualls

dd


MFG. BLDG.
8"CI. SAN. SEWER
6" TERRA COTTA PIPE
2" GALV. STEEL VINYL-ACETATE LINES
3" WATER
6" T.C.
MFG. BLDG.
SUMPS
MALEIC ANHYD. STORAGE
Removed From Grd on 11/15/86
FUEL OIL
1" AIR LINE
3" COPPER PRODUCT LINES
NO 1 VAC.
NO 2 VAC.
ELECT. VAULT
55 gal Gasoline Tk Removed 11/15/86
GAS LINE
LAB.
WATER
8" TERRA COTTA SEWER PIPE
6" T.C. SEWER LINE
8" CI. WATER LINE
F. HYD. & HOSE HOUSE
3" WATER MAIN
TRANS.
8" C.I. WATER LINE
CATALYST STORAGE BLDG.
4" C.I. WATER LINE
TO SEWER MAIN
REV
DATE
DESCRIPTIO

Air Products

Date 20 NOVEMBER 1986

INTEROFFICE MEMORANDUM

Subject Maryland Department of Natural Resources Visit - 11/19/86

To D. A. Johnson — Elkton (Location, Organization, or Department)

From W. J. Stueben — Elkton (Location, Organization, or Department)

cc: W. MacNair
D. Qualls
J. W. Gentile

Neil Jones, an inspector with the Oil Division of the DNR visited the plant to determine if we had done an effective job of removing the abandoned fuel oil (FB103) storage tank and gasoline (FB524) storage tank. (The fuel oil storage tank (FB103) thought to be an 8500 gallon tank turned out to be closer to 6500 gallons). The 55 gallon gasoline storage tank (FB524) rumored to be a 55 gallon drum had turned out to be one and while thought to be empty, actually contained 20 gallons of gasoline.

Neil agreed that the entire operation had been handled professionally, and was generally pleased with the results. He inspected the fuel oil storage tank and agreed that it was in good condition, that there were no breaks of integrity (no holes) and that we could dispose of this tank as we saw fit. He said that he thought the tank was in good enough condition to be recertified and reused. The gasoline storage "tank" had a number of perforations in the metal. Neil inspected the "tank" and agreed that although Maryland normally requires a monitoring well to be installed when such is found, that Elkton would not have to because of the following scenario:

1) The tank was removed from service in 1980 and was not used since.

2) Gasoline was removed from the tank to the extent possible at the time it was removed from service.

3) The gasoline found in the "tank" was below the dip tube (approximately 20 gallons).

4) All perforations in the "tank" were above the liquid line and did not result in any leaks to the surrounding soil/ environment. The corrosion probably occurred subsequent to the tank's removal from service.

5. Any gasoline spilled during removal was in the surrounding soil we had placed in drums. (It had rained and there was water standing in the hole - there was no sign of a sheen on the water).

I agreed to spread the drummed soil on a piece of plastic and allow it to "air" for a day to make sure no gasoline remained before putting it back in the hole left by the "tank". The soil will be checked with an explosivemeter (no reading over background) before putting it back in the hole.

I told Neil that we would let the gasoline tank "air out", then crush it and put in normal trash - he agreed. Neil also agreed to send Elkton a copy of his trip report.

W. J. Stueben

dd

State of Maryland

DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION

TAWES STATE OFFICE BUILDING D-3
TAYLOR AVENUE
ANNAPOLIS, MARYLAND 21401

NEIL A. JONES
SPILL RESPONSE TEAM
INSPECTOR

OIL SPILL CONTROL DIVISION

(301) 269-2104

Air Products

Date 09 JANUARY 1986

INTEROFFICE MEMORANDUM

Subject EXCAVATED DIRT FROM REMOVAL OF UNDERGROUND GASOLINE STORAGE TA

To BILL STUEBEN ELKTON

From BILL DeBLAKER ELKTON

(Location, Organization, or Department)

(Location, Organization, or Department)

During the week ending 05 Dec 1986, the three (3) drums of excavated dirt was spread out on plastic to allow drying. On 08 Dec 1986 pictures of the dirt spread out on the plastic were taken and placed in the equipment files. Paul Shamblin and I took readings of the di with the MSA Explosimeter and determined the dirt was clean. The dirt was then spread on the ground behind the effluent tanks. The results of the MSA explosimeter tests are as follows:

Drum #1

a) 0.0
b) 0.0
c) 0.0

Drum #2

a) 0.0
b) 0.0
c) 0.0

Drum #3

a) 0.0
b) 0.0
c) 0.0

The excavated hole where the gasoline tank was located has been back-filled with clean fill dirt.

This action meets the recommendations made by the State of Maryland D.N.R. Rep. (Mr. Neil A. Jones) that reviewed this project with you.

William J. DeBlaker

mg

Copy: D. A. Johnson
D. A. Qualls
File

(320)

APPENDIX E

SHIPPING MANIFEST FOR HAZARDOUS CAUSTIC METHANOL CLEANING SOLUTION AND LABORATORY WASTE

1031-004

State of New Jersey
Department of Environmental Protection
Division of Waste Management
CN 028, Trenton, NJ 08625

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

Manifest Document No.: MD D 0 03 9 67 88 2 88 004 | Page 1 of 1

A. State Manifest Document Number: NJA 0357991

Generator's Name and Mailing Address:
AIR PRODUCTS & CHEMICALS, INC
325 W MAIN STREET
ELKTON, MD 21921 (301 - 398-2190

B. State Generator's ID: SAME

Transporter 1 Company Name: ELDREDGE, INC WEST CHESTER, PA — US EPA ID Number: PA D0 14 14 6 1 79

C. State Transporter's ID: NJDEP S068
D. Transporter's Phone: 215-436-4749
E. State Transporter's ID: N/A
F. Transporter's Phone: N/A

Designated Facility Name and Site Address:
DuPONT CHAMBER WORKS
RTE 130
DEEPWATER, NJ 08023 — US EPA ID Number: NJ D0 0 23 85 7 30

G. State Facility's ID: N/A
H. Facility's Phone: 609-299-5000

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. FLAMMABLE LIQUID, CORROSIVE, NOS UN2924/RQ 100P	001	TT	41,380	LB	D002
b.					
c.					
d.					

AIR PRODUCTS ... DEC 5 1988

J. Additional Descriptions for Materials Listed Above: PH - 7.2
CONTAINS APPROX: 50%, 25% METHANOL, 15% SODIUM HYDROXIDE, 10% POLYVINYL ACETATE
PHYSICAL STATE: LIQUID SPECIFIC GRAVITY APPROX. 1.0

K. Handling Codes for Wastes Listed Above: T01 — EPA HAZARD CODES I,C

15. Special Handling Instructions and Additional Information
DuPONT CONTRACT #OW-1031 RELEASE #004 SEAL #s OWD208527 OWD208528
MARYLAND PERMIT #88A04-92 MARYLAND HAULER ID #HWH-077

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: J. V. Van Hulle, Plant Manager — Signature: John V Van Hulle — Month Day Year: 11 23 8[illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: WILBERT W. HUBBS JR. — Signature: Wilbert W. Hubbs Jr — Month Day Year: 11 23 8[illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature:

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: J CRAWFORD — Signature: [illegible] — 11 23 8[illegible]